



COMPUTER AUTOMATION, INC.
the NAKED MINI company

NAKED MINI /ALPHA

DUAL TTY/CRT/MODEM INTERFACE MODULE

Computer Automation's Dual TTY/CRT/Modem Interface is a fully buffered, dual channel, half-duplex I/O module that interfaces all NAKED MINI/ALPHA Computers with ASR-33 or -35 Teletypewriters, CRT terminals, or Modems for leased lines.

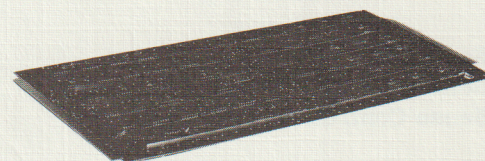
The interface module is available in three configurations for controlling one of the following: two ASR-33 or -35 Teletypewriters using 20 milliampere current loops, two CRT's or Modems using EIA RS232C logic levels, or one TTY and one CRT or Modem with combination of both interfaces. Baud rates of 110 to 9600 are available for the CRT or Modem configurations. Each controller channel contains a data buffer register for serial-to-parallel conversion (when receiving data) and parallel-to-serial conversion (when transmitting). Both word and End-of-Block interrupts can be initiated by each controller channel.

ADVANTAGES

- Auto Echo
- Occupies 1/2 card slot in computer I/O section
- Two independent half-duplex controllers on one module
- Two interrupts per controller channel
- Selectable (at time of order) baud rates and interface logic
- Motor on/off control (TTY only)
- Request to Send/Clear to Send control (EIA interface only)



PATENT PENDING



HOW TO ORDER

Specify product number 14236-21 for controlling two ASR-33 or -35 Teletypewriters with 20 ma current loops at 110 Baud. Specify -2x for current loop interface at other baud rates (see table below).

Specify product number 14236-1x for controlling two CRT's or Modems utilizing EIA RS232C logic levels.

Specify product number 14236-5x for controlling one TTY with 20 ma current loop (at 110 Baud) and one CRT or Modem utilizing EIA RS232C logic levels.

NOTE

x in product number denotes baud rates for controller channel as follows:

-1	110 baud	-4	600 baud	-7	2400 baud
-2	150 baud	-5	1200 baud	-8	4800 baud
-3	300 baud	-6	1800 baud	-9	9600 baud

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SPECIFICATIONS

Data Format.....	1 start bit 8 data bits 2 stop bits
Transfer Rates	
TTY.....	110 baud
CRT/Modem.....	110 to 9600 baud
Power Requirements.....	+5 Vdc @ 1.5 Amps +15 Vdc @ 0.05 Amps -15 Vdc @ 0.05 Amps
Data Set Interface Logic Levels	
To/From TTY.....	True = current flow False = absence of current
To/From CRT/Modem.....	True $\leq$ -7 Vdc False $\geq$ +7 Vdc

SELECT COMMANDS

Enable Auto Echo	Initialize Controller
Select Keyboard	Set Word XFER Mask
Step Read (TTY only)	Set Block XFER Mask
Continuous Read (TTY only)	Reset masks

AUTO I/O INSTRUCTIONS

Input Byte to Memory
Input Word to Memory
Output Byte from Memory
Output Word from Memory

INPUT COMMANDS

Input Byte from Controller to A or X Register
Input Word from Controller to A or X Register
Read Byte from Controller to A or X Register on Sense
Read Word from Controller to A or X Register on Sense

OUTPUT COMMANDS

Turn Motor On (RTS Off)
Turn Motor Off (RTS On)
Output A or X Register to Device
Write A or X Register on Sense

SENSE COMMANDS

Sense Buffer Ready	Sense Clear to Send (CRT only)
Sense Word XFER Mask On	Sense Motor On
Sense Controller Not Busy	

ADDRESS LOCATIONS

The following memory locations are assigned as standard interrupt locations for this module. These locations can be moved to alternate memory location by use of jumpers on the device interface connector.

Address	Description
	Controller 0
: 0002	Word Interrupt
: 0006	End-of-Block Interrupt
	Controller 1
: 000A	Word Interrupt
: 000E	End-of-Block Interrupt

The standard device addresses for the two controllers on this module are : 07 (channel 0) and : 06 (channel 1). These device addresses can be changed to any two sequential addresses from : 02 to : 1F by adding jumpers on each device connector.